

ClaimsWhat is claimed is:

- 1 1. In a computer controlled user-interactive display  
2 system, a display interface implementation for providing  
3 alternate access for physically impaired users to items  
4 normally displayed in drop down menus comprising:  
5 means for displaying a sequential set of drop down  
6 menus, each having a plurality of selectable items;  
7 selection means scrolled along each of said menus;  
8 and  
9 means enabling a user to selectively display as an  
10 alternative to said set of menus, a hierarchical  
11 arrangement of selectable items corresponding to items in  
12 said set of menus.
- 1 2. The display interface implementation of claim 1  
2 wherein:  
3 the menus in said sequential set of drop down menus  
4 sequentially vary from each other in scope; and  
5 said alternative hierarchical arrangement of  
6 selectable items is a tree of said items with sequential  
7 levels of varying scope respectively corresponding to the  
8 varying scope of said set of menus.
- 1 3. The display interface implementation of claim 2  
2 wherein said selectable items in said tree are icons.
- 1 4. The display interface implementation of claim 3  
2 wherein said icons are varied in size so as to be  
3 optimized to diminish the effects of the individual  
4 user's impairment.

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1 5. The display interface implementation of claim 4  
2 wherein said icons in said tree are varied in distance  
3 from each other so as to be optimized to diminish the  
4 effects of the individual user's impairment.

1 6. The display interface implementation of claim 4  
2 further including:

3 means for tracking use characteristics of an  
4 individual user; and

5 means responsive to said tracking means for  
6 dynamically varying said sizes of said icons.

1 7. The display interface implementation of claim 4  
2 further including:

3 means for tracking use characteristics of an  
4 individual user; and

5 means responsive to said tracking means for  
6 eliminating rarely used icons from said tree.

1 8. The display interface implementation of claim 6  
2 wherein said means for tracking use characteristics of an  
3 individual user includes:

4 means for counting the number of times that a  
5 plurality of icons are selected; and

6 means responsive to said counting means for varying  
7 the sizes of said icons relative to the selection counts  
8 of said icons.

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1 9. A method for providing alternate access for  
2 physically impaired users to items normally displayed in  
3 drop down menus in computer controlled user-interactive  
4 display systems comprising:  
5 displaying a sequential set of drop down menus, each  
6 having a plurality of selectable items;  
7 enabling a user to select items from each of said  
8 menus by scrolling along each of said menus; and  
9 enabling a user to selectively display as an  
10 alternative to said set of menus, a hierarchical  
11 arrangement of selectable items corresponding to items in  
12 said set of menus.

1 10. The method for providing alternate access for  
2 physically impaired users of claim 9 wherein:  
3 the menus in said sequential set of drop down menus  
4 sequentially are varied from each other in scope; and  
5 said alternative hierarchical arrangement of  
6 selectable items is arranged in a tree of said items with  
7 sequential levels of varying scope respectively  
8 corresponding to the varying scope of said set of menus.

1 11. The method for providing alternate access for  
2 physically impaired users of claim 10 wherein said  
3 selectable items in said tree are icons.

1 12. The method for providing alternate access for  
2 physically impaired users of claim 11 including the  
3 further step of varying said icons in size to optimize  
4 said tree to diminish the effects of the individual  
5 user's impairment.

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1 13. The method for providing alternate access for  
2 physically impaired users of claim 12 including the  
3 further step of varying said icons in said tree in  
4 distance from each other to optimize said tree to  
5 diminish the effects of the individual user's impairment.

1 14. The method for providing alternate access for  
2 physically impaired users of claim 12 further including  
3 the steps of:  
4 tracking use characteristics of an individual user;  
5 and  
6 dynamically varying said sizes of said icons  
7 responsive to said tracking.

1 15. The method for providing alternate access for  
2 physically impaired users of claim 12 further including  
3 the steps of:  
4 tracking use characteristics of an individual user;  
5 and  
6 dynamically eliminating rarely used icons from said  
7 tree responsive to said tracking.

1 16. The method for providing alternate access for  
2 physically impaired users of claim 14 wherein said  
3 tracking use characteristics of an individual user  
4 includes the steps of:  
5 counting the number of times that a plurality of  
6 icons are selected; and  
7 varying the sizes of said icons relative to the  
8 selection counts of said icons.

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1 17. A computer program having program code included on a  
2 computer readable medium for providing alternate access  
3 for physically impaired users to items normally displayed  
4 in drop down menus in computer controlled user-  
5 interactive display systems comprising:

6 means for displaying a sequential set of drop down  
7 menus, each having a plurality of selectable items;

8 selection means scrolled along each of said menus;  
9 and

10 means enabling a user to selectively display as an  
11 alternative to said set of menus, a hierarchical  
12 arrangement of selectable items corresponding to items in  
13 said set of menus.

1 18. The computer program of claim 17 wherein:

2 the menus in said sequential set of drop down menus  
3 sequentially vary from each other in scope; and

4 said alternative hierarchical arrangement of  
5 selectable items is a tree of said items with sequential  
6 levels of varying scope respectively corresponding to the  
7 varying scope of said set of menus.

1 19. The computer program of claim 18 wherein said

2 selectable items in said tree are icons.

1 20. The computer program of claim 19 wherein said icons  
2 are varied in size so as to be optimized to diminish the  
3 effects of the individual user's impairment.

1 21. The computer program of claim 20 wherein said icons  
2 in said tree are varied in distance from each other so as  
3 to be optimized to diminish the effects of the individual  
4 user's impairment.

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1 22. The computer program of claim 20 further including:  
2 means for tracking use characteristics of an  
3 individual user; and  
4 means responsive to said tracking means for  
5 dynamically varying said sizes of said icons.

1 23. The computer program of claim 20 further including:  
2 means for tracking use characteristics of an  
3 individual user; and  
4 means responsive to said tracking means for  
5 eliminating rarely used icons from said tree.

1 24. The computer program of claim 22 wherein said  
2 means for tracking use characteristics of an individual  
3 user includes:  
4 means for counting the number of times that a  
5 plurality of icons are selected; and  
6 means responsive to said counting means for varying  
7 the sizes of said icons relative to the selection counts  
8 of said icons.

1 25. The display interface implementation of claim 6  
2 wherein said means for tracking use characteristics of an  
3 individual user includes:  
4 means for counting the number of times that a  
5 plurality of icons are selected; and  
6 means responsive to said counting means for varying  
7 the locations of said icons in said hierarchical tree  
8 relative to the selection counts of said icons.

1 26. The method for providing alternate access for  
2 physically impaired users of claim 14 wherein said  
3 tracking use characteristics of an individual user  
4 includes the steps of:  
5       counting the number of times that a plurality of  
6 icons are selected; and  
7       varying the locations of said icons in said  
8 hierarchical tree relative to the selection counts of  
9 said icons.

1 27. The computer program of claim 22 wherein said  
2 means for tracking use characteristics of an individual  
3 user includes:  
4       means for counting the number of times that a  
5 plurality of icons are selected; and  
6       means responsive to said counting means for varying  
7 the locations of said icons in said hierarchical tree  
8 relative to the selection counts of said icons.

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